

*Precision Weighing Sensor*  
**AD-4212A**  
*series*



Super Hybrid Sensor

# *High speed response of 0.8 seconds and high precision weighing resolution of 0.1mg using Super Hybrid Sensor (SHS) technology for an extremely effective weighing system!*

To improve productivity, you can create your own weighing system using the AD-4212A Precision Weighing Sensor.

The compact design, as well as the separate weighing unit and display unit, ensure easy installation of the SHS at any stage of your weighing system.

## ***High speed weighing response time***

The SHS (Super Hybrid Sensor) offers a high speed weighing response time of approximately 0.8 seconds for 1mg weighing sensitivity and approximately 1.1 seconds for 0.1mg weighing sensitivity.

## ***High resolution and capacity***

Available models include 110g x 0.1mg, 210g x 1mg, 610g x 1mg and 1100g x 1mg.

## ***Compact design***

The weighing sensor unit is extremely compact ( 80 x 230 x 90 mm ) and ideal for easy installation with weighing systems.

## ***Separate weighing sensor unit and display unit***

The weighing sensor unit and display unit are connected with a cable 2m in length. An optional 3m cable ( OP-07 ) makes a maximum length of 5m possible for diverse applications. ( Can be extended further with RS-232C . )

It is easy to install the display unit into the panel of the control box providing easy operation and space economization.

## ***Comparator function and Buzzer function***

A three-level comparator output (HI, OK or LO indicator) with I/O, as well as a Buzzer function, provide a simple and easy design solution for any precise weighing system.

## ***External input function***

The Re-Zero and Print key function can be controlled externally using the I/O D-Sub 25-pin connector.

## ***Auto Power ON and OFF function***

When the balance is plugged in, the ON function is automatically displayed. The OFF function will activate automatically if the balance is not operated for 10 minutes.

## ***Auto Zero display after data output***

Possible to set the display to automatically adjust to Zero after weight data is output.

## ***Full Digital Calibration function***

Simple and easy to calibrate with standard calibration mass for weighing accuracy.

## ***Response Speed setting function***

Function available to select optimum response speed from FAST, MID or SLOW.

## ***WinCT software***

Windows Communication Tools (WinCT) software for the high-speed transmission of weight data to a PC, and the ability to control the AD-4212A by sending commands.

## ***Data memory function***

Capable of storing any of the following; 200 weight measurements, 100 weight measurements with time & date, 50 calibration & calibration test measurements, 20 unit weight measurements for counting mode or 20 comparator setting limits values.

## ***RS-232C***

Standard interface function of bi-directional RS-232C for weighing data transmission and control of the AD-4212A.

## ***Ethernet interface***

Optional Ethernet interface (OP-08) for high-speed weight data transmission and multi-weighing lines application.  
( Comes with application software WinCT-plus in CD-ROM. )

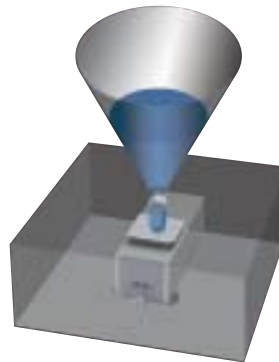
# Applications



(Wall mounting)



High speed weighing  
Check-weighing



Precise weight filling  
Precise dispensing



Isolated weighing



## AD-4212A

**SHS**  
Super Hybrid Sensor

**VFD**  
VFD Display

**COMPARATOR**

**Buzzer Function**

**ON**

**OFF**

**FDC**  
Full Digital Calibration

**ACA**  
Automatic Counting Accuracy Improvement

**RS-232C**  
STANDARD

**LAN**

**GLP**

**ID**

**WinCT**

### Self-check function

Easy to evaluate the performance of the AD-4212A.

### "CLr" Clear function

Returns to original factory settings for calibration data, function table, comparator value and data memory.

### Bubble spirit level and adjustable leveling foot

Easy to level the weighing sensor unit for more accurate weighing applications.

### Capacity indicator

Possible to read capacity being weighed from 0% to 100% of weighing range.

### Durable weighing sensor unit and display unit

Aluminum die casting case coated with strong paint, which even protects from hydrogen peroxide.

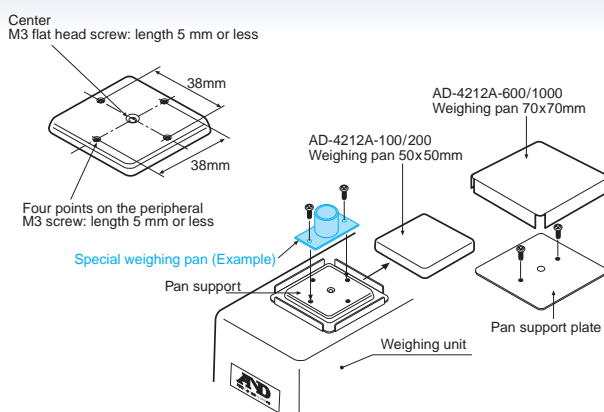
### Multi weighing units

Possible to use weighing unit incorporating counting mode with ACAI (Automatic Counting Accuracy Improvement) and Percent mode.

## Designing the special weighing pan — Please refer to the examples of weighing pans the end user can custom-design.

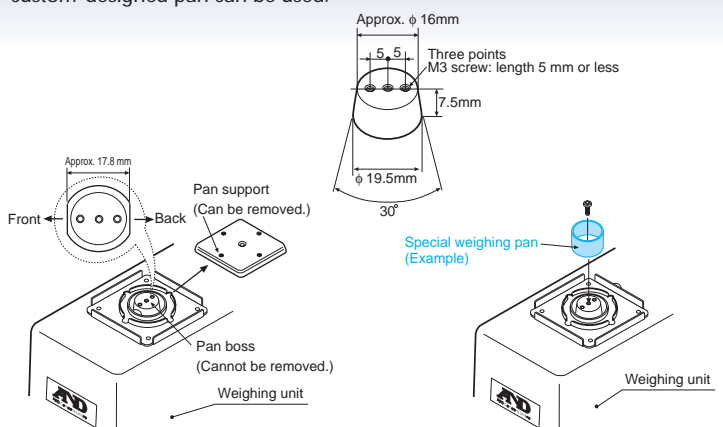
### Using the pan support

The example below is showing you a custom-designed weighing pan so that it can fit to the pan support.

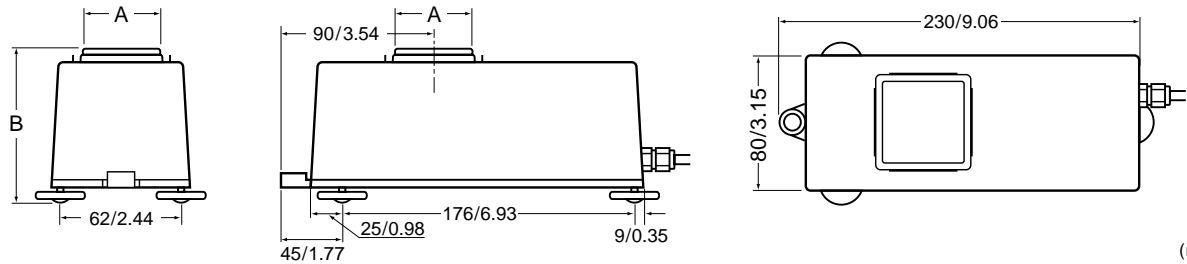


### Using the pan boss

You can remove the pan support and use the pan boss so that your custom-designed pan can be used.



## Dimensions(mm/inch)



(mm/inch)

Model	A	B
AD-4212A-100/200	50 / 1.97	90(85-95) / 3.54(3.35-3.74)
AD-4212A-600/1000	70 / 2.76	92.5(87.5-97.5) / 3.64(3.44-3.84)

## Specifications

Models		AD-4212A-100		AD-4212A-200		AD-4212A-600		AD-4212A-1000	
Weighing capacity		110g		210g		610g		1100g	
Minimum weighing value		0.0001g		0.001g					
Counting mode	Minimum unit mass	0.0001g		0.001g					
	Number of samples	10, 25, 50 or 100 pieces							
Percent mode	Minimum 100% reference mass	0.0100g		0.100g					
	Minimum 100% display	0.01%, 0.1%, 1% (Depends on the reference mass stored)							
Repeatability (Standard deviation)		0.00015g		0.001g					
Linearity		± 0.0003g		± 0.002g		± 0.003g			
Stabilization time (TYP at FAST response under good environment)	0 to 30g	Approx. 1.1sec	0 to 30g	Approx. 0.8sec	0 to 30g	Approx. 0.9sec	0 to 30g	Approx. 0.9sec	
	30 to 110g	Approx. 1.3sec	30g to 210g	Approx. 1.0sec	30g to 610g	Approx. 1.1sec	30g to 1100g	Approx. 1.1sec	
Display refresh rate		10 times/second (5 times/second can be selected)							
I/O unit	RS-232C	Bi-directional, 600-19200 bps							
	Comparator contact output	3-level output with buzzer							
	External contact input	RE-ZERO, PRINT							
Sensitivity drift		± 2 ppm/°C (10°C to 30°C/50°F to 86°F)							
Operating environment		5°C to 40°C (41°F to 104°F), 85%RH or less (no condensation)							
Calibration weight provided (Conforming to OIML Class F1)		50g		100g		200g			
Applicable calibration weight value		20g, 50g, 100g		20g, 50g, 100g, 200g		20g, 50g, 100g, 200g, 400g, 500g, 600g		20g, 50g, 100g, 200g, 300g, 400g, 500g, 600g, 700g, 800g, 900g, 1000g	
Weighing Unit	Dimensions	80(W) x 230(D) x 90(H) mm							
	Weighing pan	50 x 50 mm				70 x 70 mm			
	Weight	Approx. 2kg							
Display Unit	Dimensions	237(W) x 150(D) x 155(H) mm							
	Weight	Approx. 2kg							
Connection cable		Approx. 2m (between weighing unit and display unit)							
Power supply		AC adaptor							
Power consumption		Approx.11VA (supplied to the AC adaptor)							

Specifications subject to change for improvement without notice.

## Options

AD4212A-01	BCD output / External contact input
AD4212A-07	Extension cable (3m)
AD4212A-08	Ethernet interface (With application software WinCT-plus in CD-ROM)
AD4212A-19	Stainless steel breeze break ( Standard for AD-4212A-100 )
AD4212A-20	Metal leveling foot

## Accessories

AD-8121B	Compact Printer
AD-8118B	Journal Printer
AD-8951	Comparator Light
AD-1683EX	Static Eliminator



AD-8121B



AD-8951



AD-1683EX



...Clearly a Better Value

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